IN THE CLAIMS:

1-27. (canceled)

28. (new) A method for implementing a speckle reduction filter comprising:

receiving a processed data stream from a processor;

filtering the processed data stream with a first value set of speckle reduction parameters to produce a first image data stream;

filtering the processed data stream with a second value set of speckle reduction parameters to produce a second image data stream, wherein the second value set of speckle reduction parameters is different than the first value set; and

simultaneously co-displaying on a common screen a first speckle-reduced image that is generated from the first image data stream and a second speckle-reduced image that is generated from the second image data stream.

29. (new) The method according to claim 28, further comprising increasing a range over which values of data included in at least one of the first and second image data streams are distributed to improve contrast of at least one the first and second speckle-reduced images.

30. (new) The method according to claim 28, wherein simultaneously co-displaying comprises simultaneously co-displaying in a dual display mode, said method further comprising enabling a user to enter the dual display mode at least one of during a scan, while a replay of pre-recorded cine loops is displayed on a screen, and while a still image that is not updated periodically is displayed on the screen.

31. (new) The method according to claim 28, further comprising automatically, without user intervention, optimizing at least one of the first and second value sets of speckle reduction parameters based on a scan of an imaging system and what is being imaged.

32. (new) The method according to claim 28, wherein simultaneously co-displaying further comprises co-displaying an original unfiltered image on the common screen with the first

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and second speckle-reduced images, wherein the original unfiltered image is generated from the processed data stream.

33.   (new) The method according to claim 28, wherein filtering the processed data stream with a first value set of speckle reduction parameters comprises:

dividing the processed data stream into data subsets;

simultaneously filtering the data subsets using a speckle reduction filter to produce filtered data subsets; and

producing the first image data stream based on the filtered data subsets.

34.   (new) The method according to claim 28, wherein the first speckle-reduced image has less speckle reduction than the second speckle-reduced image.

35.   (new) The method according to claim 28, wherein filtering the processed data stream with a second value set of speckle reduction parameters comprises changing the values of the first value set of speckle reduction parameters during at least one of a scan, while a replay of pre-recorded cine loops is displayed on the screen, and while a still image that is not updated periodically is displayed on the screen.

36.   (new) An ultrasound imaging system comprising:

a transducer array;

a beamformer;

a processor for processing a receive beam from the beamformer;

a scan converter and display controller operationally coupled to the transducer array, the beamformer, and the processor, the scan converter and display controller configured to:

receive a processed data stream from the processor;

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filter the processed data stream with a first value set of speckle reduction parameters to produce a first image data stream;

filter the processed data stream with a second value set of speckle reduction parameters to produce a second image data stream, wherein the second value set of speckle reduction parameters is different than the first value set; and

simultaneously co-display on a common screen a first speckle-reduced image that is generated from the first image data stream and a second speckle-reduced image that is generated from the second image data stream.

37.   (new)   A computer readable medium storing a computer program which, when executed by a processor, causes the processor to perform a method comprising:

receiving a processed data stream from a processor;

filtering the processed data stream with a first value set of speckle reduction parameters to produce a first image data stream;

filtering the processed data stream with a second value set of speckle reduction parameters to produce a second image data stream, wherein the second value set of speckle reduction parameters is different than the first value set; and

simultaneously co-displaying on a common screen a first speckle-reduced image that is generated from the first image data stream and a second speckle-reduced image that is generated from the second image data stream.

38.   (new)   A method for implementing a speckle reduction filter comprising:

receiving a processed data stream from a processor;

dividing the processed data stream into data subsets;

simultaneously filtering the data subsets by using a speckle reduction filter to produce filtered data subsets; and

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producing an image data stream based on the filtered data subsets,

wherein the filtering step is based on adjustable speckle reduction parameters, the method further comprising:

changing values of the speckle reduction parameters between different first and second value sets to form first and second image data streams; and

simultaneously co-displaying a first image and a second image on a common screen, wherein the first image is generated from the first image data stream, and wherein the second image is generated from the second image data stream, and further wherein the first image and the second image are speckle-reduced images using the speckle reduction parameters of the first value set and the speckle reduction parameters of the second value set, respectively.

39. (new) The method according to claim 38, further comprising increasing a range over which values of data included in at least one of the first and second image data streams are distributed to improve contrast of at least one the first and second images.

40. (new) The method according to claim 38, wherein simultaneously co-displaying comprises simultaneously co-displaying in a dual display mode, said method further comprising enabling a user to enter the dual display mode at least one of during a scan, while a replay of pre-recorded cine loops is displayed on a screen, and while a still image that is not updated periodically is displayed on the screen.

41. (new) The method according to claim 38, further comprising automatically, without user intervention, optimizing the speckle reduction parameters based on a scan of an imaging system and what is being imaged.

42. (new) The method according to claim 38, wherein simultaneously co-displaying further comprises co-displaying an original unfiltered image on the common screen with the first and second images, wherein the original unfiltered image is generated from the processed data stream.

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43. (new) The method according to claim 38, wherein simultaneously filtering the data subsets comprises simultaneously filtering the data subsets using a Single Instruction-Stream, Multiple Data-Stream (SIMD) processor.

44. (new) The method according to claim 38, wherein the first image has less speckle reduction than the second image.

45. (new) The method according to claim 38, wherein changing values of the speckle reduction parameters between different first and second value sets comprises changing the values of the speckle reduction parameters during at least one of a scan, while a replay of pre-recorded cine loops is displayed on the screen, and while a still image that is not updated periodically is displayed on the screen.

. 46. (new) A computer readable medium storing a computer program which, when executed by a processor, causes the processor to perform a method comprising:

receiving a processed data stream from a processor;

dividing the processed data stream into data subsets;

simultaneously filtering the data subsets by using a speckle reduction filter to produce filtered data subsets; and

producing an image data stream based on the filtered data subsets,

wherein the filtering step is based on adjustable speckle reduction parameters, the method further comprising:

changing values of the speckle reduction parameters between different first and second value sets to form first and second image data streams; and

simultaneously co-displaying a first image and a second image on a common screen, wherein the first image is generated from the first image data stream, and wherein the second image is generated from the second image data stream, and further wherein the first image and

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the second image are speckle-reduced images using the speckle reduction parameters of the first value set and the speckle reduction parameters of the second value set, respectively.

47. (new) An ultrasound imaging system comprising:

a transducer array;

a beamformer;

a processor for processing a receive beam from the beamformer;

a scan converter and display controller operationally coupled to the transducer array, the beamformer, and the processor, the scan converter and display controller configured to:

receive a processed data stream from the processor;

divide the processed data stream into data subsets;

simultaneously filter the data subsets by using a speckle reduction filter to produce filtered data subsets; and

produce an image data stream based on the filtered data subsets,

wherein the filtering step is based on adjustable speckle reduction parameters, the scan converter and display controller further configured to:

change values of the speckle reduction parameters between different first and second value sets to form first and second image data streams; and

simultaneously co-display a first image and a second image on a common screen, wherein the first image is generated from the first image data stream, and wherein the second image is generated from the second image data stream, and further wherein the first image and the second image are speckle-reduced images using the speckle reduction parameters of the first value set and the speckle reduction parameters of the second value set, respectively.

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